

REMARKS

Claims 25-50 are pending in the application. Favorable reconsideration is respectfully requested in light of the following Remarks.

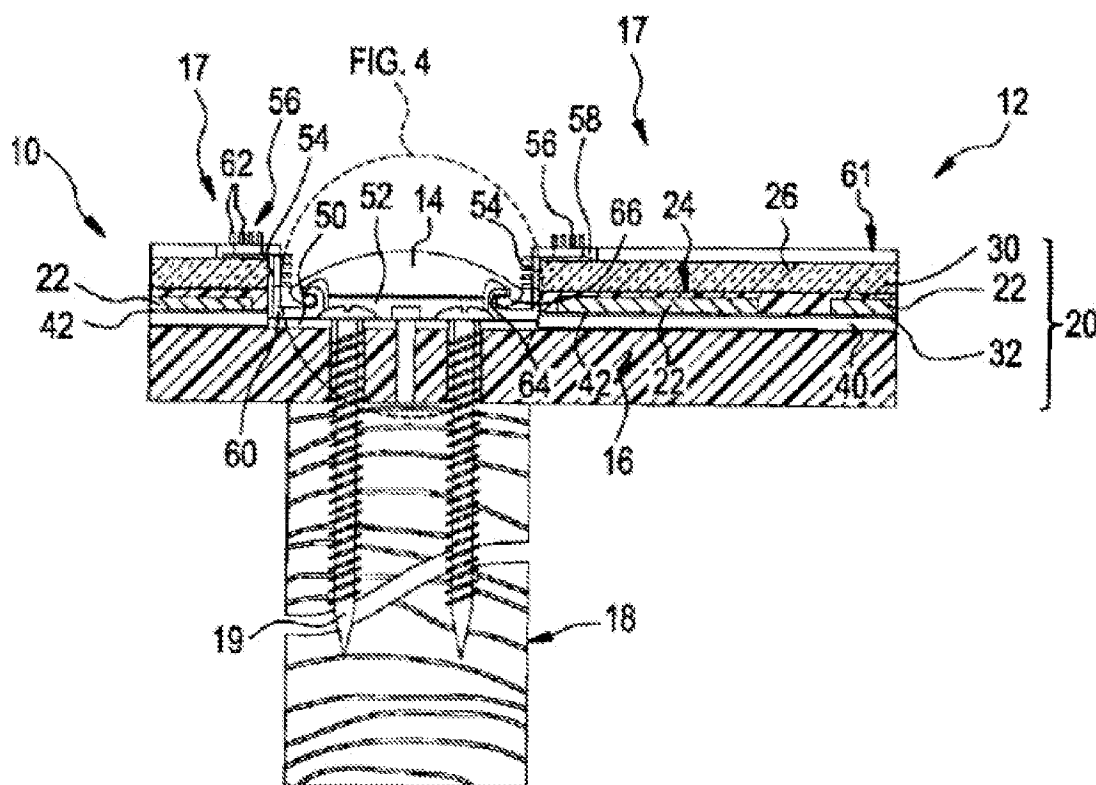
The Office action rejects Claims 25-36, 38, 43 and 48 under 35 U.S.C. 102(b) over Komori (U.S. Patent No. 6,215,060, hereinafter “Komori”), Claims 37-39, 42, 49 and 52 under 35 U.S.C. 103(a) over Komori in view of Konold (U.S. Patent No. 6,630,622, hereinafter “Konold”), Claims 40 and 50 under 35 U.S.C. 103(a) over Komori and Konold, and further in view of Kawaguchi et al. (U.S. Patent No. 5,250,265, hereinafter “Kawaguchi”), Claims 41 and 51 under 35 U.S.C. 103(a) over Komori and Konold and Inoue, and further in view of Kapany et al. (U.S. Patent No. 3,985,116, hereinafter “Kapany”), Claims 45 and 47 under 35 U.S.C. 103(a) over Komori in view of Gould et al. (U.S. Patent No. 4,273,106, hereinafter “Gould”), Claims 42 and 46 under 35 U.S.C. 103(a) over Komori in view of Kuwahara et al. (U.S. Patent No. 6,179,639, hereinafter “Kuwahara”). The rejections are respectfully traversed.

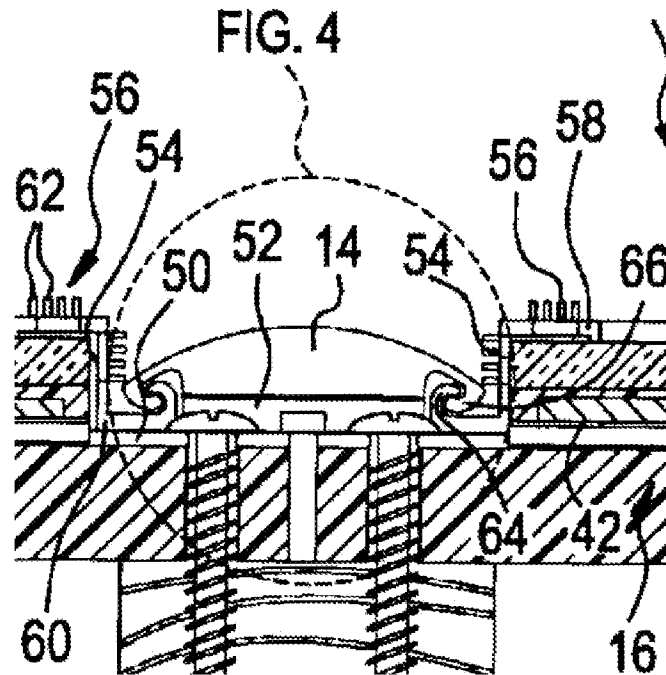
Independent Claim 25 specifies, *inter alia*, a photovoltaic integrated building component comprising first solar cell laminate assembly (10) and a second solar cell laminate assembly (12). Each laminate assembly includes a backplane assembly (20) with a metal layer (42) disposed between a solar cell assembly and a polymer substrate (16). The component further includes a sealing member (14) with an electrical connector (52) in electrical contact with the metal layer (42) of the backplane assembly (20) to provide electrical interconnection between the first and second solar cell laminate assemblies (10, 12). Support for this feature can be found, for example, in Paragraphs [0022] – [0027], [0033] and [0034] of the specification and illustrated in Figures 1 and 4 of the drawings.

Independent Claim 42 specifies, *inter alia*, a backplane assembly (20) disposed between each solar cell assembly (10, 12) and the polymer substrate (16), the backplane assembly including a metal layer (42) in electrical contact with the second side of each

solar cell assembly, each solar cell laminate assembly including a frame (60) disposed about a periphery of each solar cell laminate assembly, a portion of the metal layer extending from the frame defining an edge connector (50), and a sealing member that includes an electrical connector (52) in electrical contact with the edge connector extending from the frame of each solar cell laminate assembly to provide electrical interconnection between the first and second solar cell laminate assemblies. Support for this feature can be found, for example, in Paragraphs [0032] and [0033] of the specification and illustrated in Figures 1 and 4 of the drawings.

FIG. 1





A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *See MPEP §2131*. Contrary to the Office action that all of the elements of Claim 25 are disclosed in Komori, at least the feature of each solar cell laminate assembly further including a backplane assembly disposed between each solar cell assembly and the polymer substrate, the backplane assembly including a metal layer in electrical contact with the second side of each solar cell assembly, and a sealing member operably connected to the first and second solar cell laminate assemblies, the sealing member including an electrical connector in electrical contact with the metal layer of the backplane assembly to provide electrical interconnection between the first and second solar cell laminate assemblies, is not disclosed, taught or suggested in Komori, so the rejection is unsupported by the art and should be withdrawn.

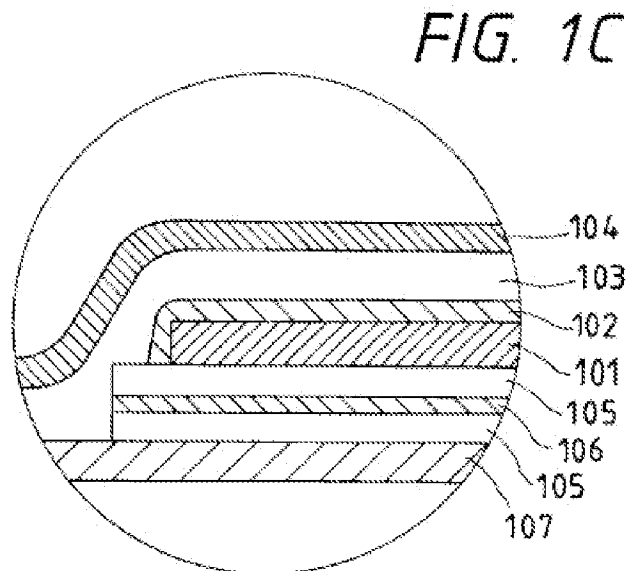
On Page 2 of the Office action, the Examiner asserts that Komori teaches the following:

“each solar cell laminate assembly further including a backplane (107) assembly disposed between each solar cell assembly (101) and the polymer substrate (105) (Figure 1A & 1C).”

The Examiner also asserts on Pages 2-3 that Komori teaches the following:

“a sealing member/copper tab (505/504) operably connected to the first and second solar cell laminate assemblies (col. 13; lines: 45-50), the sealing member including an electrical connector (504) in electrical contact with the metal layer of the backplane (107) assembly to provide electrical interconnection between the first and second solar cell laminate (101) assemblies as shown in Figure 5A-5C (col. 14; lines: 53-67).”

However, the Examiner has mischaracterized the support member 107 of Komori, shown in Fig. 1C below, as the backplane assembly 20 including a metal layer 42 of the claimed invention. There is no metal layer in the support member 107 of Komori. Therefore, there is no way that Komori teaches that the metal layer of the backplane assembly is in electrical contact with a sealing member, as recited in Claim 1.

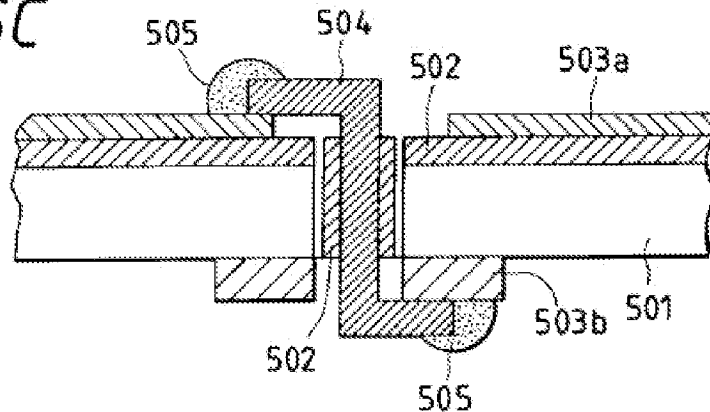


For at least this reason, independent Claim 25 is allowable over the applied art. Withdrawal of the rejection is respectfully requested.

In addition, it would not have been obvious to modify Komori to meet the claimed invention. Komori discloses a conventional arrangement for connecting two solar cells by a copper tab 504 connecting a positive terminal 503a on the top surface of one solar cell to a negative terminal 503b on the bottom surface of an adjacent solar cell, as shown in Fig. 5C below. Thus, Komori teaches that the electrical connection is

made on opposite sides of adjacent solar cells.

FIG. 5C



On the other hand, the claimed invention is directed to a metal layer in electrical contact with the second side of each of the solar cell laminate assemblies, which is the same side of each of the solar cell assemblies. Therefore, one of ordinary skill in the art would not use common sense to modify Komori to meet the claimed invention.

According to *MPEP* §2143, to establish a *prima facie* case of obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *In re Linter*, 458 F.2d 1013, 173 USPQ 560, 562 (CCPA 1972). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Finally, the applied reference must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

It is respectfully submitted that the remaining references add nothing to overcome these shortcomings in Komori. Thus, the Office action fails to establish a *prima facie* case of obviousness because all the claim limitations are not taught or suggested in the applied art.

For at least this reason, Claims 25-52 are allowable over the applied art, taken singly or in combination. Withdrawal of the rejection is respectfully requested.

Appl. No. 10/711,107
Reply to Office final action dated April 1, 2008
Attorney Docket 148263-1

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of the application is earnestly solicited.

Should Examiner Hall believe anything further would be desirable in order to place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

It is believed that any additional fees due with respect to this paper have already been identified. However, if any additional fees are required in connection with the filing of this paper, permission is given to charge account number 07-0868 in the name of General Electric Company.

30 June 2008

Respectfully submitted,

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